

Air Force Sustainability Initiatives

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Aspects



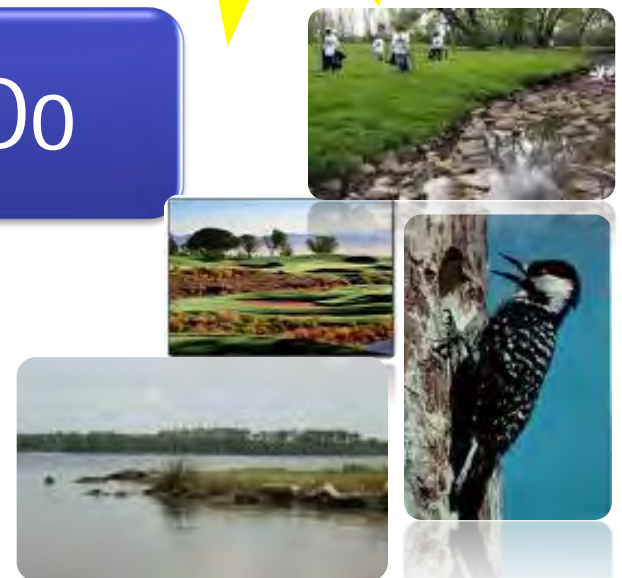
Plan

Act

Check

Do

Best Opportunity to Optimize: During Planning and Design



Impacts



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Sustainable Planning & Design

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SYMPOSIUM

| Planning Indicator | Charleston | | | |
|--|----------------------------|---------------|---------------|--------|
| | Supply | Demand | Headroom | Rating |
| ENERGY | | | | |
| from A7CAE (Demand=Total Reportable Consumption / (MBTU - Rating=Cost/SEI) | | 27,413,067.61 | | 24.07 |
| from A7CAE (Intensity=Total MBTU/SF) | | | | |
| Energy Intensity (MBTU) | | | | |
| Energy Cost (\$/Sq Ft) | | | | |
| Energy Consumption (MBTU) | | | | |
| Energy Cost (\$/yr)** | | | | |
| Renewable Energy Projects & Purchases (Electric) | | | | |
| Existing | | | | |
| Potential (Planned, Budgeted or Funded) | | | | |
| Contribution to Energy Reduction | | | | |
| Vehicle/Eqpt Fuel Consumption | | | | |
| Petroleum | | | | |
| Alternative | | | | |
| WATER SUPPLY | | | | |
| Water Supply (avg gal/day) | 27,168,139.00 | 739,804.00 | 26,428,335.00 | N-0 |
| Water Supply (peak gal/day) | 27,168,139.00 | 936,133.00 | 26,232,006.00 | N-0 |
| WATER DISCHARGE | | | | |
| Water Discharge (avg gal/day) | 1,391,000.00 | 727,986.00 | 663,014.00 | N-0 |
| Water Discharge (peak gal/day) | 1,391,000.00 | 947,258.00 | 443,742.00 | N-0 |
| WATER QUALITY | | | | |
| Water Supply (current) | | | | N-1 |
| Water Supply (future) | | | | N-1 |
| Storm Water Discharge | | | | NA |
| Storm Water Receiving Body (current) | | | | N-2 |
| Storm Water Receiving Body (future) | | | | N-2 |
| AIR QUALITY | | | | |
| Air Quality (Attainment/Nonattainment) | Attainment | | | N-0 |
| Pollutants in Nonattainment | | | | |
| Air Permit | Synthetic Minor / Title IV | | | |
| Nox (tons/year) | 100.00 | 10.42 | 89.58 | |
| SO2 (tons/year) | | | | |
| PM (tons/year) | | | | |

Legend for Natural Infrastructure Assessment (NIA) Data

| N-rating | Description |
|----------|--|
| N-0 | N-0 – Opportunities |
| N-1 | N-1 – Resource is capable of fully supporting the mission of assigned units, organizations, and/or tenants with acceptable regulatory or permit constraints. |
| N-2 | N-2 – Resource is capable of supporting the mission of assigned units, organizations, and/or tenants with minimal regulatory or permit constraints. |
| N-3 | N-3 – Resource capability presents challenge to the mission of assigned units, organizations, and/or tenants due to moderate regulatory or permit constraints. |
| N-4 | N-4 – Resource capability presents significant challenges to the mission of assigned units, organizations, and/or tenants due to significant regulatory or permit constraints. |

| Planning Indicator | Charleston | | | |
|--|------------|-----------|----------|---|
| | Supply | Demand | Headroom | Rating |
| Green House Gases | | | | |
| Facility Electricity (GHG Target Subject) | | 34,827.50 | | |
| Facility Fuel Combustion (GHG Target Subject) | | 5,139.30 | | |
| WASTE REDUCTION | | | | |
| Non-HAZ Waste Reduction (Tons) | | | | |
| Construction Waste Reduction (Tons) | | | | |
| COMMUNITY PLANNING | | | | |
| Land Use: In-Fill | | | | |
| ENROACHMENT | | | | |
| % Incompatibility | | | | |
| CZ | | | | |
| APZ 1 | | | | |
| APZ 2 | | | | |
| NATURAL/CULTURAL | | | | |
| Wetlands | | | | |
| Archaeological Sites | | | | |
| Historic Facilities | | | | |
| Land Use-Nat/Cul Areas | | | | |
| EXTERNAL SUSTAINABILITY | | | | |
| Urban Sprawl (High, Med, Low) | | | | High (see Strom Thurmond Institute of Govt & Public Affairs) |
| Increase in Regional Growth Rate | | | | 2.4208 |
| Regional Population Growth | | | | 8.57684 |
| Regional Land Urbanization* | | | | 10,739,483,367 |
| Housing Affordability | | | | 33.94 |
| Housing Availability | | | | 15 |
| Climatic Vulnerability (2030 or 2050 timeframe?) | | | | |
| --- Drought | | | | 0 |
| --- Federally Declared Floods | | | | High |
| --- Flood Risk* | | | | |
| --- Sea Level Rise (flooding expected to be caused by < 1 meter, > 1 meter, N/A) | | | | < 1 meter |
| --- Temperature Rise Impact | | | | Low |
| --- Precipitation Pattern Changes | | | | Low |
| --- Seismic Zones | | | | Low |
| --- Storm Surge/Intensity | | | | Med |
| --- Tornadoes | | | | 0.0082 |
| --- Lightning Density | | | | |
| --- Wildfires | | | | |

Very Low Vulnerability (1)

Low Vulnerability (2)

Moderate Vulnerability (3)

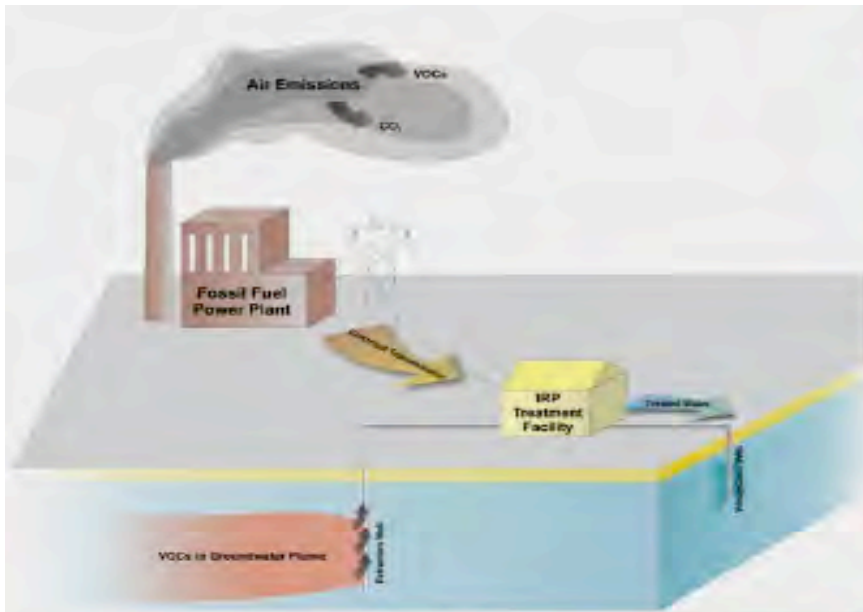
Vulnerable (4)

High Vulnerability (5)



Sustainability Application: MMR Remediation Project

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***Electricity Generation
to Power IRP Remedial
Systems Results in Air
Emissions Including
Greenhouse Gases***



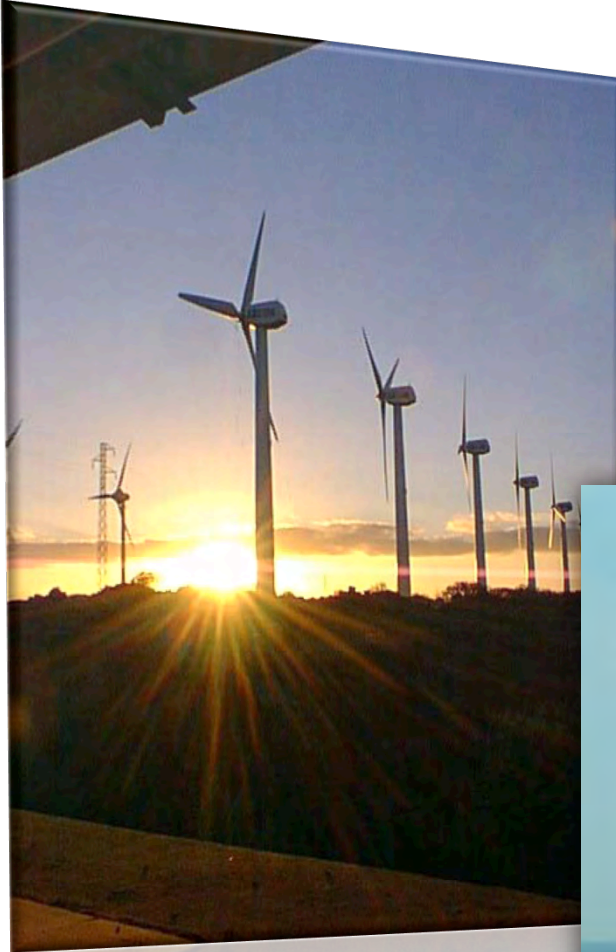
MMR Wind Turbine Construction

***Wind power to offset green
house gas production***



AF Encroachment Management Program

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Conservation Successes

Red-Cockaded Woodpecker



Okaloosa Darter



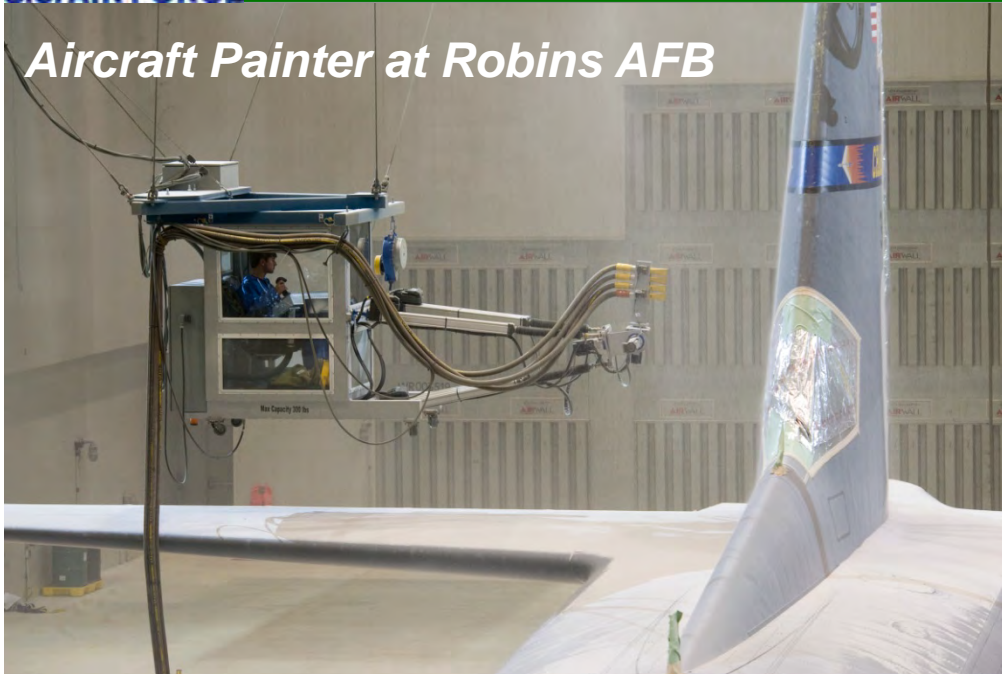


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Pollution Prevention

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Aircraft Painter at Robins AFB



Biofuel refill for A-10 Thunderbolt II at Eglin AFB



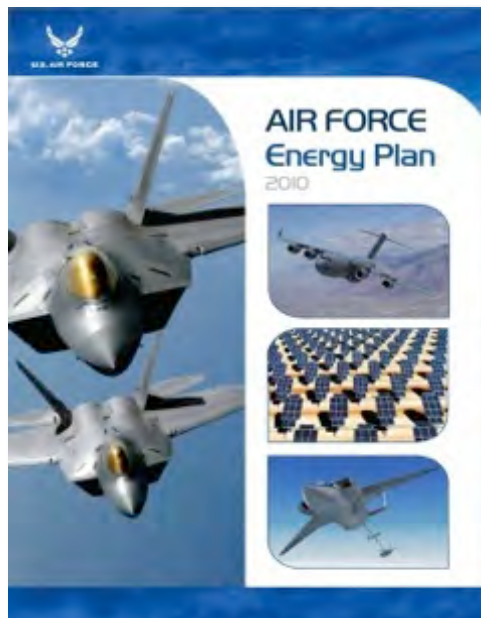
Hazardous Waste Technician at Randolph AFB



Scrap Metal for Recycling



Air Force Energy Plan



3-PART STRATEGY

- *Reduce Demand*
- *Increase Supply*
- *Change the Culture*



ENERGY VISION:
Make Energy A Consideration In All We Do



Reduce Demand

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Increase Supply

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Change the Culture

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